

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022122**Date Inspected:** 24-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector noted the majority of the ABF personnel went home at 0700 due to bad weather. It was noted a limited crew of approximately 7 welders stayed and performed welding, the QA Inspector observed the following,

Tower temporary welding

East tower leg to shear plate identified as B1E complete joint penetration electro slag weld joint. The QA Inspector randomly observed the ABF Welding Superintendent Dan Ieraci and the ABF welder Kenneth Chapel installing and tack welding the weld joint restraint plates or strong backs to the weld joint identified above. The QA Inspector noted the temporary attachment was identified as a P4 type strong back. The QA Inspector noted the ends of the plate have a single bevel to be welded utilizing a partial joint penetration groove weld at both ends of the attachment from the 2F welding position. The QA Inspector noted for clarification, one end of the plate gets welded to the B1E shear plate and the other end of the plate is welded to the outer skin of the south tower shaft. The QA Inspector noted no weld other than shielded metal arc welding (SMAW) tack welding was performed on this date. The QA Inspector observed Mr. Ieraci preheat the isolated area adjacent to the electro slag vertical weld joint to 225°F utilizing a rose bud torch. After the minimum required preheat was achieved, Mr. Ieraci would hold the plate in place while the ABF welder Kenneth Chapel performed SMAW tack weld on the edge of the P4 type strong back and not in the PJP groove to be welded at a later time. The QA Inspector noted the ABF welder was utilizing 1/8" E7018 low hydrogen electrodes with 136 Amps. It was noted the minimum required preheat and SMAW parameters did appear to be in general compliance with the contract requirements. The QA Inspector noted welds joint identified as and 25, 26, 27 and 28 were tack welded on this date at the ground level portion of the tower base. The QA Inspector noted the P4 type plates are tack welded at two levels of the tower base, but in

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the same weld joints identified above. The QA Inspector noted the top P4 Type plates were tack welded on this date. The QA Inspector noted the SE QC Inspector Patrick Swain was on sit to monitor the in process tack welding and fit up. The QA Inspector noted the same process was repeated twice for the above identified weld joint and again for the weld joint identified as shear plate B2E to the east tower shaft outer skin plate. The QA Inspector noted no FCAW of the PJP welds were performed on this date. The QA Inspector noted only fit up and tack welding.

The QA Inspector spent the remainder of the shift performing updates of on site tracking of production welding and non destructive testing. The Lead QA Inspector Rick Bettencourt and QA Inspectors on site, reviewed all tracking logs and updated all data with current information and production welding status. In addition the QA Inspector reviewed contract drawing and special provisions related to the 04-0120F4 contract.

Summary of Conversations:

no pertinent conversation noted.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
